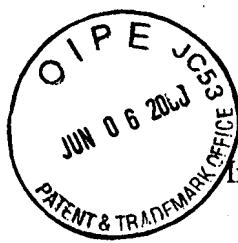


# 25



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Maa, Shalong

Application No.: 08/833,342

Art Unit: 3713

Filing Date: April 4, 1997

For: Computer-Controlled Talking Figure Toy with Animated Features

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

DECLARATIONS TRAVERSING GROUNDS OF REJECTION  
UNDER 37 C.F.R. § 1.132

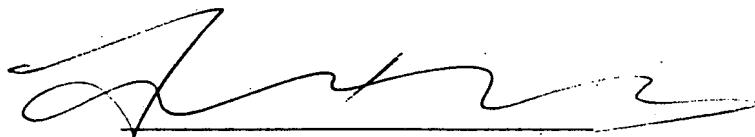
In response to the Office Actions dated 08/02/99 and 05/15/00, I, Shalong Maa, the undersigned Applicant and inventor of the above-identified Application, make the following statements and declarations upon my personal knowledge:

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Certificate of Mailing / Transmission Under 37 C.F.R. § 1.8(a), 1.10

I hereby certify that, on the day shown below, this correspondence is being:

Transmitted by facsimile to the Patent and Trademark Office.



Signature

Date: 06/05/00

Shalong Maa  
(Type or print name of person certifying)

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## ARTICLE I. DEFINITIONS

Unless the context specifically indicates otherwise, the following terms when used in this DECLARATION shall have the respective meaning set forth below:

1.1 TONG: As used in this DECLARATION, the term TONG means the patented prior art invention with Patent Number 5,636,994 and dated 06/10/97.

1.2 GASPER ET AL: As used in this DECLARATION, the term GASPER ET AL means the patented prior art invention with Patent Number 5,111,409 and dated 05/05/92.

1.3 MODIFICATION: As used in this DECLARATION, the term MODIFICATION means modification of TONG as described in the following arguments in rejecting Claims 36 and 38-42 in the Office Actions:

“TONG discloses the claimed invention except for the actuators being comprised of a ‘solenoid means’”, and

“.. it would have been obvious to one of ordinary skill in the art at the time the invention was made to connect two-phase solenoids as the actuators in the invention of TONG ...”

1.4 COMBINATION: As used in this DECLARATION, the term COMBINATION means combination of TONG and GASPER ET AL as described in the following arguments in rejecting Claims 44-60 in the Office Actions:

“TONG substantially discloses the claimed invention except for specifically describing the ‘digital animation-control signal sequence being associated with selected audio speech ... and transmitted to the toy in synchronization with the transmission’, and

“it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of sound analysis used in GASPER ET AL in the invention of TONG in order to efficiently and accurately analyze and coordinate the inputted user sounds with the movement signals sent to the doll of TONG.”

## ARTICLE II. UNEXPECTED PROPERTIES

It is my understanding that the claimed invention presents the following unexpected and advantageous properties described in the specification that are not possessed by TONG based on the teaching of TONG or based on the alleged MODIFICATION or COMBINATION.

### 2.1 Independent Control of Second Body Part

According to the above-identified application, the digital actuation system of the claimed invention facilitates separate control of a toy figure’s second movable body part with actuation

thereof being substantially independent of that of the toy figure's movable first body part.

In contrast thereto, since TONG utilizes the same sound signal for supporting the sound speaker as well as for controlling all the motors within the doll's body, it requires that, in case of the doll having a second movable body part, the movement of the second body part be substantially identical to or concurrent with that of the first movable part.

## 2.2 Digital Control

According to the above-identified application, the computer employed in the claimed invention utilizes digital signals for providing animation and synchronization control for the toy figure, by creating a digital animation-control signal sequence that is separate from the sound signal sequence sent to the toy figure.

In contrast thereto, TONG employs the same analog sound signal for controlling each doll's animation actuation as well as for supporting the doll's audio speaker. TONG utilizes a computer only to send an analog sound signal to the doll. TONG does not teach or suggest using the computer to generate separate digital synchronization-control signals for transmission to the doll.

## 2.3 Precise Actuation Control

According to the above-identified application, the toy figure's animation actuation can be controlled according detailed textual content and speed of the toy figure's audio speech. For example, as described in the specification, the actuation of the toy figure's movable body part can be controlled based on whether the current word or phrase of its audio speech belongs to a specific vocabulary groups.

In contrast thereto, since TONG employs the same analog sound signal for controlling the doll's animation actuation as well as for supporting its audio output, it requires that the doll's movable portion be always actuated under the presence of any sound sent to the doll regardless of its textual content.

## 2.4 Animation Being Independent of Musical Background

As described above, according to the above-identified application, the toy figure's animation can be controlled according detailed textual content and speed of the toy figure's audio speech. In case that the sound sent to the toy figure is of musical type or background sound or the like without any textual content, the toy figure can be controlled to have no body part movement.

In contrast thereto, since TONG employs the same analog sound signal for controlling the doll's animation actuation as well as for supporting its audio output, it requires that the doll's movable portion be always actuated under the presence of any type of musical or background sound sent to the doll.

### ARTICLE III. UNFEASIBLE MODIFICATION

It is my understanding that the alleged MODIFICATION of TONG is functionally unfeasible as to achieving all the functionality and results of the claimed invention.

As described above, only analog sound signals are involved in TONG. TONG utilizes an amplifier to "increases the level of the audio signal" and a rectifier to "converts the amplified signal to a D.C. voltage which is applied to the drive motors ....". The actuation system of TONG, which employs amplified and rectified analog sound signals for actuating the drive motors of each doll, does not include any type of logic input means for receiving separate digital control signals. The electronic devices employed in TONG do not facilitate conventional digital control of a two-phase solenoid.

Thus, TONG's lack of fundamental and critical elements and functionality of the claimed invention, other than the two-phase solenoid actuator, renders the alleged MODIFICATION functionally unfeasible.

### ARTICLE IV. UNFEASIBLE COMBINATION

It is my understanding that the alleged COMBINATION is functionally unfeasible as to achieving all the functionality and results of the claimed invention.

It is understood that the animation-control signal sequence of the claimed invention are provided for controlling only two (2) positions, i.e., "open" and "close", of a physical toy figure's movable body part, and that the two logic levels of the animation-control signal sequence are directly associated with said two positions of the toy figure's movable body part. The claimed invention also provides methods for adjusting the frequency of actuation control according to reaction-response time of the toy figure's movable body part and the two-phase solenoid actuator attached thereto.

In contrast thereto, the basic concept of GASPER ET AL is to synchronizes an audio sound with an on-screen image's at least eight (8) lip positions and sixteen (16) total facial expressions, instead of two mouth positions of the claimed physical toy figure. Thus, GASPER ET AL's synchronization method is not pertinent to digital control of a two-phase physical device having finite reaction-response time.

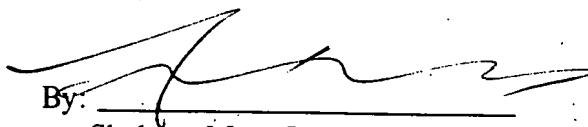
Therefore, TONG's lack of fundamental and critical elements to facilitates digital actuation control as described above and GASPER ET AL's non-pertinent synchronization method render the alleged COMBINATION functionally unfeasible.

ARTICLE IV. CONCLUSION

For the foregoing reasons, reconsideration of the application is respectfully requested.

I represent that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true.

Respectfully submitted,

By: 

Shalong Maa, Ph.D.

Date: 06/05/00

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